Across Multiple On-line Auction Sites," filed September 16, 1999. The disclosures of both of the above cited applications are hereby incorporated by reference.

Please delete the first paragraph of the Summary of the Invention on page 4 and replace it with the following paragraph:

To address the disadvantages and inefficiencies of the prior art, one embodiment of the invention is a network-based system which provides a uniform graphical user interface that enables a user to observe, actively monitor and participate in multiple, concurrent and different on-line auctions, from one central place at one time. Such a system minimizes the need for the user, as a shopper, to learn how to use and exercise the different types of user interfaces at each of the different available on-line auction sites.

Please delete the first full paragraph on page 11 and replace it with the following paragraph:

The host computer 104 executes a plurality of software modules 114, 116, 118, 120, and 122. The software modules 114, 116, 118, 120, and 122 communicate with each other by way of an operating system 124. Any number of multi-tasking operating systems, such as UNIX® or Windows/NT® can be employed as the operating system 124. Illustratively, the host computer 104 executes a monitor 114, a notifier 116, a viewer 118, a search engine 120, and a site access facilitator 122. The modules 114, 116, 118, 120, and 122 are first briefly described, and then each module is described in further detail below.

Please delete the last paragraph on page 12 which continues to page 13 and replace it

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with the following paragraph:

In operation, the database 106 communicates with the CPU 104 by way of the I/O port 208. The CPU 200 controls the operation of the host computer 104. The display device 202 displays information to a system administrator/programmer. The input device 204, which is by way of example a keyboard and mouse, enables the system administrator to direct the operation of the host computer 104. The network interface 206 enables communication between the host computer 104 and the shopper access devices 108a-108d and the enterprise sites 112a-112d, all by way of the network 110. The memory 210 stores the application programs 214 and the operating system software 218 for execution by the host computer 104. The memory 210 also stores data 216 used by the application programs 214 and the operating system software 218.

Please delete the last full paragraph on page 13 and replace it with the following paragraph:

Although the system 102 is illustratively depicted with a single host computer 104, those skilled in the art will appreciate that the system operation may alternatively be distributed over a plurality of host computers, with the execution of the application programs 214 also being distributed over the plurality of host computers. Each of the software modules 114, 116, 118, 120, and 122 will now be discussed in detail.

Please delete the last full paragraph on page 14 and replace it with the following paragraph:

Update scheduling based upon auction specific circumstances varies based upon the

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information gathered at a particular auction site. For example, the closing time for the bidding associated with the sale of a particular item is unique to that item. Information associated with bid and final sale statistics for an item may only be available at the auction site for a limited time after the closing time for the item. Thus, the monitor 114 identifies the closing time for particular items during an initial scan of the auction site and then schedules a precisely timed scan of that same auction site to gather the closing time statistics associated with the particular items. For efficiency, auction site scans whether regularly scheduled, based upon specific anticipated events (such as an auction closing time), or shopper initiated, are all used to gather other information that happens to be available.

Please delete the last full paragraph on page 16 and replace it with the following paragraph:

As indicated at 416, subsequent to organizing the data types into database tables and records, the monitor 114 determines whether new database records need to be created or whether existing database records need to be updated. If the monitor 114 detects a new item listed for exchange at one of the auction sites, then as shown at 418, it creates a new record for the item in the database 106. Alternatively, if a record already exists for the items, then as shown at 420, the monitor 114 updates the auction information for the existing record. As shown at 422, prior to storing the updated auction information in the database 106 at 424, the monitor 114 may also calculate additional statistical information, such as historical pricing information for items offered for purchase at the auction site.

Please delete the last partial paragraph on page 16 which continues on page 17 and

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replace it with the following paragraph:

The data extraction and processing method illustrated by steps 406, 408, 410, 412, and 414 is particularly insensitive to the manner in which auction sites post information. As discussed above, the monitor 114 strips away format information from the textual content. In this way, the monitor 114 operates independently of formatting and other site aesthetics, such as color schemes. This insensitivity enables the illustrative system 102, to readily adapt to changes in auction site formatting.

Please delete the first full paragraph on page 18 and replace it with the following paragraph:

The viewer 118 executes on the host computer 104 to provide a graphical user interface for the system 102. In the illustrative embodiment, the viewer 118 provides a system Web site, an example of which is located at address www.biddersedge.com. At the system Web site, the viewer provides a plurality of Web pages that enable a shopper to monitor and participate in auction activity occurring at a plurality of auction sites. The viewer 118 includes foreground process software that detects signals from the shopper access devices 108a-108d. Preferably, a shopper enters requests at a shopper access device 108a-108d by way of a mouse or keypad. The viewer 118 detects the request and responds by displaying the requested information.

Please delete the second full paragraph on page 19 and replace it with the following paragraph:

In the illustrative flow diagram 500, a shopper enters the system 102 by way of the

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Home page 600 depicted in FIGURE 6. The Home page 600 includes a page navigation

menu bar 602, which highlights the Home page menu button entry 604 to indicate that the

shopper is currently viewing the Home page 600. The other buttons 606, 608, 610, 612, 614

and 616 on the navigation menu bar 602, enable a shopper to navigate to other GUI pages

generated by the viewer 118. By way of example, the button 606 signals the viewer 118 to

present the Sign In/Sign Out page 1200 of FIGURE 12. The button 608 signals the viewer

118 to present the Categories page 1100 of FIGURE 11. The button 610 signals the viewer

118 to present the My Auctions^{SM} page 800 of FIGURE 8. The button 612 signals the

viewer 118 to present the Deal Watch^{SM} page 900 of FIGURE 9. The button 614 signals the

viewer 118 to present the Personalize page 1000 of FIGURE 10, and the button 616 signals

the viewer to present a Help page (not shown).

Please delete the last partial paragraph on page 19 which continues to page 20 and

replace it with the following paragraph:

A feature of the illustrative system 102 is that it enables shoppers to search for items

in the database 106 based on categories, keywords and any combination of the two. In the

illustrative flowchart 500, a shopper decides at 502 whether to search for an item by

categories. To facilitate such a search, the Home page 600 includes a categories list 626.

The categories list 626 displays high-level categories of items contained in the database 102.

In response to a shopper selecting a high-level category 626 in step 504, the system 102

determines in step 506 whether any subcategories of the selected category include further

subcategories. If such is the case, the viewer 118, in step 508, displays the subcategories for

the selected category. Additionally, the system 102 enables the shopper to further narrow

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their search by selecting one of the displayed subcategories. As indicated at 506 and 510, if no further subcategories exist, the viewer 118 displays the search results by way of a Search Results page 700 of FIGURE 7.

Please delete the first full paragraph on page 20 and replace it with the following paragraph:

As indicated at 512, the search engine 120 also enables shoppers to limit an item search by keyword. To facilitate this feature, the Home page 600 provides "Find It" interfaces 618 and 620. The "Find It" interfaces 618 and 620 have associated text entry locations 622 and 624, respectively, for entering keyword queries. Should a shopper decide to perform a keyword search in step 512, the shopper enters the keywords in step 514 in either of fields 622 or 624. As indicated at 516, the search engine 120 also enables shoppers to limit the type of keyword search performed. To facilitate this feature, the page 600 includes a pull-down menu bar 628. As indicated in step 518, using the menu bar 628, a shopper can direct the search engine 120 to search the database 106 based on all of the words in the field 628, or alternately, based on any of the words in the field 628. Additionally, the shopper can limit the search to the "+/- Style" with regard to the words in the field 628. A "+" character preceding a keyword narrows the search to items containing at least one instance of the keyword. A "-" character narrows the search to items not having any occurrences of the keyword. As indicated at 520, the search engine 120 further enables shoppers to limit a search by auction site. As shown at step 522, should a shopper decide to so limit a search, the shopper uses a pull-down menu 630 to restrict the keyword search to

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Q12
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items at one of the supported auction sites, or alternatively, to items at any of the supported

auction sites, by default.

Please delete the second full paragraph on page 21 and replace it with the following

paragraph:

A further feature of the illustrative embodiment is that the viewer provides a graphical

display of the categories to which a shopper's keyword search applies. By way of example,

in response to a shopper selecting a category from the category list 626, the viewer 118

displays any available subcategories. Similarly, in response to a shopper selecting a

displayed subcategory, the viewer 118 displays any available subcategories of the selected

Q13 subcategories. If a shopper conducts a keyword search, the specified search criteria only

applies to the categories or sub-categories displayed on the current GUI page by the viewer.

This feature aids the shopper in visually restricting searches to particular "branches, or

leaves" of a category hierarchy tree (displayed in the categories list 626), while further

restricting how the search engine interprets the keyword search text. As discussed above

with respect to step 510, when no more subcategories are available, the viewer 118 navigates

to the Search Results page 700 and displays the search results in a search results section 724.

Please delete the last partial paragraph on page 21 which continues to page 22 and

replace it with the following paragraph:

As illustrated at 526, a shopper initiates a search by actuating (clicking) one of the

Q14 "Find It" buttons 618 or 620. As shown at 510, actuating a "Find It" button 618 or 620

causes the viewer 118 to display the results returned from the search engine 120. FIGURE 7

shows an illustrative Search Results page 700 generated by the viewer 118, for displaying

search results returned from the search engine 120.

Please delete the first full paragraph on page 22 and replace it with the following

paragraph:

As illustrated in FIGURE 5B and as discussed below with respect to FIGURES 7 –

12, the system 102 provides shoppers with a number of features by way of the Results page

700. By way of example, as illustratively depicted at 534 in FIGURE 5B and at 724 in

FIGURE 7, a shopper can select the type of auctions to be included in a search. More

specifically, the system 102 enables shoppers to select whether they want to participate in

person-to-person auctions, merchant-to-person auctions or both. The system 102 defaults to

including both. If a shopper decides to select an auction type, then the shopper performs the

auction selection (step 526) by selecting one of the radio buttons 726a-726c.

Please delete the second full paragraph on page 22 and replace it with the following

paragraph:

Another feature of the system 102, illustrated at 538 in FIGURE 5B and at 728 in

FIGURE 7, is that a shopper can narrow a search by matching category from the Search

Results page 700. If, as indicated in step 540, a shopper chooses to narrow the search by

category, the shopper selects one of the match categories 728 displayed in the matching

categories field 730. By selecting one of the matching categories, the displayed search

results will be restricted to those items falling within the selected matching category 728.

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Please delete the last partial paragraph on page 22 which continues to page 23 and replace it with the following paragraph:

As shown in FIGURE 7, a Search Results section 702 of the page 700 includes a Current Auctions field 704. The Current Auctions field 704 displays items returned by the search engine 120, along with the auction sites at which the items can be found. The Search Results section 702, also includes an Approx. Bid field 706, a Close field 708, a Past Prices field 710, and a Tools field 712. The Approx. Bid field 706 displays the most up to date information with regard to the current bid on the item. The Close field 708 provides the bid closing time and date. The Past Prices field 720, as in the case of fields 810a and 810b of FIGURE 8, provides historical pricing information if available.

Please delete the first full paragraph on page 23 and replace it with the following paragraph:

An additional feature of the system 102 illustrated at 542 in FIGURE 5B and at 714 in FIGURE 7, is that a shipper can choose whether to include items listed in the search results field 702 in a My Auctions^{SM} list 802 of the My Auctions^{SM} page 800. The search engine 120 periodically updates auction information for items so listed. In this way, the system 102 enables shoppers to compare prices for the same item being offered at different auctions. To store an item in the My Auctions^{SM} list (step 544), the shopper actuates the button 714.

Please delete the second full paragraph on page 23 and replace it with the following paragraph:

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Another feature of the system 102, illustrated at 546 and at 548 in FIGURE 5B and at 716 in FIGURE 7, is that shopper can choose whether to include items listed in the search results field 702 in an Item Watch[SM] section 908 of the Deal Watch[SM] page 900 of FIGURE 9. The search engine 120 periodically searches the auction sites 112a-112d to determine the availability of items placed in the Deal Watch[SM] list. According to the illustrative Deal Watch[SM] feature, the monitor 114 only signals a shopper that a Deal Watch[SM] occurs if the monitor 114 locates an exact match for the listed item. Thus, Deal Watch[SM] related searching is less time consuming than the searching associated with the Market Watch[SM] feature, and therefore can be performed more frequently.

Please delete the third partial paragraph on page 23 which continues to page 24 and replace it with the following paragraph:

According to the illustrative embodiment, the buttons 714 and 716 signal the viewer 120 to display an updated Search Results page 700 to the shopper. However, if the shopper wishes to navigate, for example to the My Auctions[SM] page 800, the shopper clicks on a hyperlink field 718. Similarly, to signal the viewer 120 to navigate to the Item Watch[SM] list 908 in the Deal Watch[SM] page 900, the shopper clicks on a hyperlink field 720. Moreover, shoppers can signal the viewer to navigate to other GUI display pages by actuating one of the buttons in the navigation tool bar 602 or by actuating one of the hyperlink fields in a footer section 603.

Please delete the first full paragraph on page 24 and replace it with the following paragraph:

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As shown in FIGURE 5B at 528, the system 102 also enables shoppers to decide whether to store a particular search strategy. As shown at 530, if a shopper decides to store a search strategy, the shopper actuates a Market Watch^{SM} button 722. In response to activation of the Market Watch^{SM} button 722, as indicated at 532, the viewer 118 hyperlinks the shopper to the Deal Watch^{SM} page 900, and the search engine 120 periodically repeats the search using the stored search criteria. In response to new items falling within the scope of the stored search criteria, the notifier 116 signals the shopper.

Please delete the first full paragraph on page 25 and replace it with the following paragraph:

FIGURE 8 shows an illustrative My Auctions^{SM} page generated by the viewer 118 for displaying the current auction status of all items added to the Auction Watch^{SM} item list for example, by way of the button 714 of FIGURE 7. As shown in FIGURE 8, the Auction Watch^{SM} page 800, includes the navigation menu bar 602 and the footer hyperlink field 603 for enabling a shopper to navigate between available GUI pages. The page 800 also includes keyword search text fields 622 and 624, "Find It" search initiation buttons 618 and 620, search narrowing menus 628 and 630, and a category list 626. The page 800, further includes the My Auctions^{SM} section 802.

Please delete the last partial paragraph on page 25 which continues to page 26 and replace it with the following paragraph:

The My Auctions^{SM} section 802 also includes two buttons 814 and 816. The button 814 enables a shopper to remove items from the My Auctions^{SM} page 800. The button 816

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enables a shopper to add an item, displayed in the My Auctions^{SM} section 802, to the Item

Watch^{SM} section 902 of the Deal Watch^{SM} page 900 shown in FIGURE 9. The My

Auctions^{SM} page 800 also includes an update button 818. Actuating the update button 818

signals the monitor 114 to update the auction information with regard to the items listed in

the My Auctions^{SM} section 802.

Please delete the last partial paragraph on page 26 which continues to page 27 and

replace it with the following paragraph:

The system 102 enables the shopper to initiate participation in an auction for any of

the items listed on the My Auctions^{SM} list. The system 102 accomplishes this by providing

hyperlinks to the auction sites offering the listed items for purchase. A shopper initiates the

hyperlink by clicking on a listed item. In response to a shopper activating the hyperlink for a

given item as determined at step 550 in FIGURE 5B, the site access facilitator 122

establishes a connection across the network 110 at step 552 between the shopper and the

auction site associated with the item. The shopper places a bid on the item according to the

procedures dictated by the auction site, which typically include registering a user name or

other identifier with the auction site that is unique to the shopper. As mentioned above, from

the My Auctions^{SM} list 802, the system 102 enables shoppers to enter auction site registration

identification names as account information for each particular item in the list. Once the

account information is entered by the shopper for the items on which the shopper has placed

bids, the account information is stored in the database 106, and the system 102 uses the

account information to track the status of the shopper's bids at the auction sites. As also

previously mentioned, the system 102 reports the status of the shopper's bids on the My

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Auctions^{SM} page 800 and optionally, automatically sends the shopper a notification by way of electronic mail, Internet messaging, pager, facsimile, digital telephone or other computer initiated communication method. According to the illustrative embodiment, the notification provides the shopper with the number of items available that fall within the scope of the Market Watch^{SM} search parameters. When the shopper responds to the notification, the system 102 provides the hopper with a complete list of qualifying items, at the time of the shopper's response.

Please delete the last partial paragraph on page 27 which continues to page 28 and replace it with the following paragraph:

FIGURE 9 depicts an illustrative Deal Watch^{SM} page 900 generated by the viewer 118. As in the case of the previous discussed GUI pages, the Deal Watch^{SM} page 900 includes the menu bar 602 for enabling shoppers to navigate between the available GUI pages. The page 900 also includes keyword search fields 622 and 624, the categories list 626, search limiting menus 628 and 630, and search initiating buttons 618 and 620.

Please delete the first full paragraph on page 28 and replace it with the following paragraph:

The Deal Watch^{SM} page 900 further includes the Market Watch^{SM} section 902. The Market Watch^{SM} section 902 displays a description of the search criteria to be used to identify newly available items. The previous search criteria may have been entered by way of browsing categories, entering a keyword search, or a combination of both. The Market Watch^{SM} section includes two buttons 904 and 906. The button 906 removes items from the

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Market Watch[SM] list. The button 906 signals the monitor 114 to update the search information with respect to an associated listed item.

Please delete the third full paragraph on page 28 and replace it with the following paragraph:

The Deal Watch[SM] page 900 additionally includes the Item Watch[SM] section 908. The Item Watch[SM] section 908 lists in field 910 items that a shopper selects for monitoring. The field 910 provides the name of the item being monitored, along with the auction site at which the item is available and the pricing history for the item. The Item Watch[SM] section 908 includes a button 912 for signaling the monitor 114 to discontinue monitoring an associated item and to signal the viewer 118 to remove the item from the Item Watch[SM] page 900.

Please delete the second full paragraph on page 29 and replace it with the following paragraph:

FIGURE 10 depicts an illustrative Personalize page 1000 generated by the viewer 118. The Personalize page 1000 includes a Change Password section 1002, a Personal Information section 1012, and a Time Zone Correction section 1028. The Change Password Section 1002 has a field 1004 for entering a Login identification. Once a shopper enters a Login identification, he or she can enter a new password in a field 1006. The shopper then repeats the new password in a field 1008. The shopper actuates a button 1010 to submit the updated information.

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Please delete the third full paragraph on page 29 and replace it with the following paragraph:

The Personal Information section 1012 enables a shopper to enter their first name in a field 1014 and their last name in a field 1016. Check boxes 1018 and 1020 enable the shopper to request confirmation of the updated personal information by way of either an email address entered in a text box 1022, or an Internet messaging address entered in text box 1024. The shopper submits the personal information by actuating (i.e., clicking) button 1026.

Please delete the fourth partial paragraph on page 29 which continues on page 30 and replace it with the following paragraph:

The Time Zone Specification section 1028 enables a shopper to select a time zone in which he or she is operating. A pull-down selection box 1030 provides the available time zone selections. Actuating button 1032 submits the shopper's time zone selection.

Please delete the third full paragraph on page 30 and replace it with the following paragraph:

FIGURE 12 depicts an illustrative Sign In / Sign Out page 1200 generated by the viewer 118. Navigating to this page automatically logs the shopper out of the system 102. The page 1200 gives the shopper an opportunity to re-log into the system 102 by entering a member name in field 1202, a password in field 1204, and actuating a submit button 1206.

IN THE ABSTRACT:

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Please delete the Abstract on page 45 and replace it with the following paragraph:

A network-based system is for aggregating information from a plurality of enterprises offering items for exchange over a network. In one embodiment, the system includes a host computer and a host database. The host computer is in communication with the enterprises over the network, and is adapted for automatically collecting and analyzing information about the items from enterprise databases associated with each of the enterprises. The host database is in communication with the host computer and is adapted for storing the information collected from the enterprise databases. The host computer is also adapted for providing a host graphical user interface through which a shopper can view, over the network, the information stored in the host database. According to one preferred embodiment, the plurality of enterprises includes auction sites offering items for purchase over the network.

IN THE CLAIMS:

1.   A method for aggregating information from a plurality of enterprises offering items for exchange over a network, each enterprise maintaining a separate exchange, each enterprise having an enterprise database for storing information about items available through each separate exchange, and each enterprise enabling shoppers to interact directly with each separate exchange to obtain the information about the items, the method comprising:

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